

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims

1. (Currently Amended) A computer-based lecture recording and reproducing method using a computer, in which the computer includes an information inputting unit for inputting handwriting information during a lecture, a voice inputting unit for inputting voice information during the lecture, a voice outputting unit for outputting the reproduced voice information, and a lecture recording and reproducing program for recording information inputted from the information inputting unit and the voice inputting unit and for reproducing the recorded information a lecture recording and reproducing program including an information inputting unit for inputting a stroke information during a lecture, a voice inputting unit for inputting a voice data during a lecture, and a voice outputting unit for outputting the reproduced voice data, the method comprising:

recording a lecture including:

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executing the lecture recording and reproducing program to display an initial window on a screen window;

recording the lecture, including:

storing information inputted from the information inputting unit and information relating to the information inputted from the information inputting unit in a memory of the computer together with time information and storing voice information inputted from the voice inputting unit in the memory of the computer;

opening a lecture file for a recording on the window writing pre-stored information in a lecture file and the information inputted from the information inputting unit on an assigned area in the memory of the computer together with a

shape of graphic tool by using the pre-stored information relating to the lecture file in the memory of the computer and the information relating to the information inputted from the information inputting unit so as to be equal to a configuration displayed on the screen; and

displaying information written on the assigned area in the memory of the computer on the window of the screen; and
reproducing the recorded lecture, including:

storing information of the lecture file and the related information in the memory of the computer;

writing sequentially the information of the lecture file on the assigned area in the memory of the computer together with the shape of graphic tool by using the related information; and

displaying the information written on the assigned area in the memory of the computer on the window of the screen and outputting the voice information through the voice outputting unit;

copying an information of the lecture file to a memory of the computer when a record function is selected; and

writing a content inputted from the information input unit onto the memory of the computer, displaying a shape of graphic tool when the stroke information stored in the memory is displayed on the window, and storing the stroke information and the voice data in the lecture file, respectively, inputted through the information inputting unit and the voice inputting unit, whereby the lecture is recorded in the lecture file; and

reproducing the recorded lecture including:

opening the lecture file for a reproduction on the window;

writing all information except the stroke information and the voice data of the information of the lecture file into the memory and displaying all information except the stroke information and the voice data of the information of the lecture file on the window, when a reproduction function is selected; and

writing the stroke information stored in the lecture file into the memory, displaying the stroke information written in the memory on the window, and reproducing the voice stored in the lecture file to be outputted via the voice outputting unit.

2. (Currently Amended) The method of claim 1, wherein the graphic tool is displayed in a pen shape when the strokehandwriting information is inputted, and is displayed in an eraser shape when the inputted strokehandwriting information is removed.

3. (Currently Amended) The method of claim 1, wherein the lecture recording and reproducing program stores an image information for the lecture in of the lecture file is lecture plan/schedule information presented for the lecture in advance and displays the image information on the window.

4. (Currently Amended) The method of claim 3, wherein the imagelecture plan/schedule information includes an information of a captured from the screen.

5. (Currently Amended) The method of claim 4, wherein the imagelecture plan/schedule information includes a graphic image file.

6. (Currently Amended) The method of claim 1, wherein the information of the lecture file includes lecture plan/schedule information, handwriting information and drawing information, a header region, a stroke information region, a draw information region, an image information region, and a voice data region.

7. (Currently Amended) The method of claim 6, wherein the drawing information and the image~~lecture plan/schedule~~ information are stored before the recording or when the recording is momentarily paused.

8. (Currently Amended) The method of claim 6, wherein the header~~information~~ relating to the information of the lecture file includes a date and time information, a version information, a recognizer, a comment, a start location of a stroke~~the handwriting~~ information, a size of a stroke~~the handwriting~~ information, a start location of a draw~~the drawing~~ information, a size of a draw~~the drawing~~ information, a start location of an image~~the lecture plan/schedule~~ information, a size of an image~~the lecture plan/schedule~~ information, a start location of a voice data~~information~~, a size of a voice data~~information~~, a resolution information, and a reserved region information relating to the lecture plan/schedule information, information relating to the handwriting information, and information relating to the drawing information.

9. (Currently Amended) The method of claim 6, wherein the information relating to the strokehandwriting information region of the lecture file stores includes a stroke record and a point record, the stroke record including the a total stroke number of strokes, a pen thickness, a pen color, a starting start time of each stroke, an ending time of each stroke, a kind of a tool, a background color information, the a total number of a-points produced in the strokes, and a-point information indicating a previous stroke and a next stroke, the point record including a time when a point is produced, a-point location information, an event information generated during at the lecture recording, and a-point information indicating a previous point and a next point.

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10. (Currently Amended) The method of claim 6, wherein the information relating to the drawing information region of the lecture file stores includes a type of a drawing object type, including a free line object and a letter object, a color of the an-object color, a type of a pen-type, a thickness of the pen-thickness, a brush style, a location information and a-layer information,

a free line object of the drawing object including a-region information having a starting point and an ending point of the free line, an object ID, an object color a color used when the object is drawn, a color before an the object is drawn, a pen thickness of the free line, the a total point number of points, a-layer information and, a location information on for a first point,

a letter object of the drawing object including a-location information for on a character string to be displayed, a-region information, a-font information, a-size, a-color, a-background color, a-background mode, a-layer information, a-character string information to be actually displayed.

11. (Currently Amended) The method of claim 6, wherein a region of the imagelecture plan/schedule information region stores a location for the imagelecture plan/schedule to be displayed, an actual size of the imagelecture plan/schedule, an imagea type of the lecture plan/schedule, a starting location information of respectiveeach images in the lecture file when one or moreat least one imageslecture plan/schedule areis used, an imagethe lecture plan/schedule information, a size information of the imagelecture plan/schedule file, a starting time for the imagelecture plan/schedule to be displayed, a time forwhen the imagelecture plan/schedule to beis deleted.

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12. (Currently Amended) The method of claim 49, wherein the lecture recording and reproducing program produces atthe stroke record is produced whenever an up or a down event occurs by the information inputting unit during the recording, produces an information generated by a movement of the information inputting unit as a point record following the stroke record to be stored in the stroke information region of the lecture file, and stores a time information when the stroke record and the point record are produced during storing the stroke information.

13. (Currently Amended) The method of claim 429, wherein the lecture recording and reproducing program reproduces the stroke information and the voice data by using the point record stores location information and a time information stored in the stroke information region according a system timer set during a reproduction operation according to the movement of the information inputting unit after the stroke record is generated.

14. (Currently Amended) The method of claim 131, wherein the lecture recording and reproducing program ~~reproduces~~ sets a system timer and reproduces information of the lecture file ~~the stroke information by using at the time~~ information according to the system timer when the recorded lecture is reproduced ~~stored in the stroke record and the point record stored in the stroke information region during a reproduction operation.~~

15. (Currently Amended) A method of reproducing a lecture by using a computer, in which the computer ~~including~~ includes a voice outputting unit for outputting a reproduced voice ~~data~~ ~~information~~ and a lecture reproducing program for reproducing a recorded lecture file, the method comprising:

executing the lecture recording and reproducing program to open ~~display~~ an initial screen window;

~~storing information of opening the recorded a lecture file, information relating to the information of the lecture file, time information and voice information in a memory of the computer on the window;~~

~~writing sequentially all the information of the lecture file except a stroke information and a voice information of informations of the lecture file into on an assigned area in the memory of the computer together with a shape of graphic tool by using the information relating to the information of the lecture file so as to be equal to a configuration displayed on the screen and displaying all information except a stroke information and a voice data of information of the lecture file on the window, when a record function is selected; and~~

~~displaying information written on the assigned area in the memory of the computer on a window of the screen and outputting a voice information through the voice outputting unit~~ ~~stored in the lecture file through the voice data unit while writing a stroke information stored in the lecture file into the memory and displaying the stroke information written in the~~

~~memory together with a graphic tool shape.~~

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16. (Original) The method of claim 15, wherein the graphic tool shape is a pen shape.